

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L4	71	cach\$6 near3 ip near3 memory	US-PGPUB; USPAT	OR	OFF	2006/04/08 19:30
L5	5	cach\$6 near3 ip near3 memory near5 table	US-PGPUB; USPAT	OR	OFF	2006/04/08 19:31
L6	9	cach\$6 near3 ip near3 (table database) near5 memory	US-PGPUB; USPAT	OR	OFF	2006/04/08 19:49
L7	1	"5583940".pn. and (cryptosystem DES)	US-PGPUB; USPAT	OR	OFF	2006/04/08 19:56
L8	473	(e electronic) adj (mail mailbox message) near4 address near3 unique	US-PGPUB; USPAT	OR	OFF	2006/04/08 20:00
L9	435	(e electronic) adj (mail mailbox message) near2 address near3 unique	US-PGPUB; USPAT	OR	OFF	2006/04/08 20:00
L10	423	(e electronic) adj (mail mailbox message) near1 address near3 unique	US-PGPUB; USPAT	OR	OFF	2006/04/08 20:00
L11	403	(e electronic) adj (mail mailbox message) adj1 address near3 unique	US-PGPUB; USPAT	OR	OFF	2006/04/08 20:00
L12	129	(e electronic) adj (mail mailbox message) adj1 address near3 unique near (identif\$)	US-PGPUB; USPAT	OR	OFF	2006/04/08 20:01
L13	0	(e electronic) adj (mail mailbox message) adj1 address near3 unique near (identif\$) with (log adj (on in) logon login)	US-PGPUB; USPAT	OR	OFF	2006/04/08 20:01
L14	17	(e electronic) adj (mail mailbox message) adj1 address near3 unique with (log adj (on in) logon login user adj name)	US-PGPUB; USPAT	OR	OFF	2006/04/08 20:06
L15	27	(e electronic) adj (mail mailbox message) adj1 address near3 uniquely near2 (discrib\$ identif\$)	US-PGPUB; USPAT	OR	OFF	2006/04/08 20:16
L16	10	(e electronic) adj (mail mailbox message) adj2 address near5 uniqu\$ with (table)	US-PGPUB; USPAT	OR	OFF	2006/04/08 20:21
L17	1	(e electronic) adj (mail mailbox message) adj2 address with uniqu\$ with (table near5 (memory ROM RAM)) not L16	US-PGPUB; USPAT	OR	OFF	2006/04/08 20:22
L18	45	(e electronic) adj (mail mailbox message) adj2 address with (table near5 (memory ROM RAM)) not L16	US-PGPUB; USPAT	OR	OFF	2006/04/08 20:24

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L19	3	(e electronic) adj (mail mailbox message) adj2 address near3 (key id) with (table near5 (memory ROM RAM)) not L16	US-PGPUB; USPAT	OR	OFF	2006/04/08 20:25
L20	214	(e electronic) adj (mail mailbox message) adj2 address near3 (key)	US-PGPUB; USPAT	OR	OFF	2006/04/08 20:25
L21	27	(e electronic) adj (mail mailbox message) adj2 address near3 (key) near5 (table array database)	US-PGPUB; USPAT	OR	OFF	2006/04/08 20:28
L23	5	(e electronic) adj (mail mailbox message) adj2 address near3 (key) near5 (list)	US-PGPUB; USPAT	OR	OFF	2006/04/08 21:06
L24	219	memory with addresses same ethernet	US-PGPUB; USPAT	OR	OFF	2006/04/08 21:07
L25	117	memory near4 addresses same ethernet	US-PGPUB; USPAT	OR	OFF	2006/04/08 21:07
L26	11	memory near4 addresses near4 table same ethernet	US-PGPUB; USPAT	OR	OFF	2006/04/08 21:08
L27	66	cach\$3 near5 memory near4 addresses near5 table	US-PGPUB; USPAT	OR	OFF	2006/04/08 21:22
L28	312	(e adj mail email electronic adj (messaging mail)).ti. and (e adj mail email electronic adj (messaging mail)) near5 unique	US-PGPUB; USPAT	OR	OFF	2006/04/08 21:24
L29	151	(e adj mail email electronic adj (messaging mail)).ti. and (e adj mail email electronic adj (messaging mail)) near5 unique near5 address	US-PGPUB; USPAT	OR	OFF	2006/04/08 21:34
L30	1	"6320941".pn. and address	US-PGPUB; USPAT	OR	OFF	2006/04/08 21:31
L31	28	(e adj mail email electronic adj (messaging mail)).ti. and (e adj mail email electronic adj (messaging mail)) near5 unique near5 address	EPO; JPO; DERWENT	OR	OFF	2006/04/08 21:44
L32	3069	(e adj mail email electronic adj (messaging mail)).ti. and (e adj mail email electronic adj (messaging mail)) near2 address	EPO; JPO; DERWENT	OR	OFF	2006/04/08 21:44
L33	205	(e adj mail email electronic adj (messaging mail)).ti. and (e adj mail email electronic adj (messaging mail)) near2 address same (e adj mail email electronic adj (messaging mail))near5 (list table)	EPO; JPO; DERWENT	OR	OFF	2006/04/08 21:45

## EAST Search History

L34	568	(e adj mail email electronic adj (messaging mail)).ti. and (e adj mail email electronic adj (messaging mail)) near2 address same (e adj mail email electronic adj (messaging mail))near5 (list table)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/08 21:46
L35	4	(e adj mail email electronic adj (messaging mail)).ti. and (e adj mail email electronic adj (messaging mail)) near2 address same (e adj mail email electronic adj (messaging mail))near5 (list table) with gateway	US-PGPUB; USPAT	OR	OFF	2006/04/08 21:54
S1	0	((net electronic e) adj ( messag\$3 mail) near3 address near5 (table matrix list database)) near5 ((encryption decryption cipher) near3 (algorithm program application))	US-PGPUB; USPAT	OR	OFF	2006/04/07 15:29
S2	0	((net electronic e) adj ( messag\$3 mail) near5 (correspond\$ correlat\$ associat\$) near5 (table matrix list database)) near5 ((encryption decryption cipher) near3 (algorithm program application))	US-PGPUB; USPAT	OR	OFF	2006/04/07 15:29
S3	0	((net electronic e) adj ( messag\$3 mail) near5 (correspond\$ correlat\$ associat\$) near5 (table matrix list database)) near5 ((encryption decryption cipher) near3 (algorithm program application))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/07 18:18
S4	0	((net electronic e) adj ( messag\$3 mail) near3 address near5 (table matrix list database)) near5 ((encryption decryption cipher) near3 (algorithm program application))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/07 18:18
S5	492	(table matrix list database) near5 ((encryption decryption cipher) near3 (algorithm program application engine function))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/07 18:03
S6	553	(table matrix list database blackboard board array checklist) near5 ((encryption decryption cipher) near3 (algorithm program application engine function))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/07 15:35

## EAST Search History

S7	61	(table matrix list database blackboard board array checklist) near5 ((encryption decryption cipher) near3 (algorithm program application engine function)) near5 (address information IP email mail mailbox ((electronic e) adj box))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/07 17:38
S8	425	(table matrix list database blackboard board array checklist) near5 ((encryption decryption cipher) near3 (key\$1)) near5 (address information IP email mail mailbox ((electronic e) adj box))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/07 16:59
S10	114	(table matrix list database blackboard board array checklist) near5 ((encryption decryption cipher) near3 (key\$1)) near5 (address IP email mail mailbox ((electronic e) adj box))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/07 17:00
S11	57	(table matrix list database blackboard board array checklist) near5 ((encryption decryption cipher) near3 (algorithm program application engine function)) near5 (id information name)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/07 18:02
S13	288	(709/206 709/20).cccls. and (encrypt\$ encipher\$ decrypt\$ decipher\$) near5 (algorithm\$1 function\$1 program\$1 application\$1 code engine\$1)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/07 18:08
S14	79	(709/206 709/20).cccls. and (encrypt\$ encipher\$ decrypt\$ decipher\$) near5 (algorithm\$1 function\$1 program\$1 application\$1 code engine\$1)and (encrypt\$ encipher\$ decrypt\$ decipher\$ key algorithm function program) near3 ((list matrix database array))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/08 15:57
S15	214	((net electronic e) adj ( messag\$3 mail) ip address) near5 (correspond\$ correlat\$ map\$ using associat\$) near5 ((encrypt\$ encipher\$ decrypt\$ decipher\$) near5 (algorithm\$1 function\$1 program\$1 application\$1 code engine\$1))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/07 18:19

## EAST Search History

S16	211	((net electronic e) adj ( messag\$3 mail) ip address) near5 (correspond\$ correlat\$ map\$ using associat\$) near5 ((encrypt\$ encipher\$ decrypt\$ decipher\$) near5 (algorithm\$1 function\$1 program\$1 application\$1 code engine\$1)) not (S11 S14)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/07 18:20
S17	210	((net electronic e) adj ( messag\$3 mail) ip address) near5 (correspond\$ correlat\$ map\$ using associat\$) near5 ((encrypt\$ encipher\$ decrypt\$ decipher\$) near5 (algorithm\$1 function\$1 program\$1 application\$1 code engine\$1)) not (S11 S14 "s61")	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/07 18:21
S18	33	(source destination receiv\$3 send\$3 client\$1) near5((net electronic e) adj ( messag\$3 mail) ip address) near5 (correspond\$ correlat\$ map\$ using associat\$) near5 ((encrypt\$ encipher\$ decrypt\$ decipher\$) near5 (algorithm\$1 function\$1 program\$1 application\$1 code engine\$1))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/07 18:33
S19	1	"6944688".pn. and algorithm\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/07 18:30
S20	5	(recipient\$) near5((net electronic e) adj ( messag\$3 mail) ip address) near5 (correspond\$ correlat\$ map\$ using associat\$) near5 ((encrypt\$ encipher\$ decrypt\$ decipher\$) near5 (algorithm\$1 function\$1 program\$1 application\$1 code engine\$1))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/07 18:32
S21	996	(source destination receiv\$3 send\$3 client\$1 recipient\$ address\$) near5(encrypt\$ encipher\$ decrypt\$ decipher\$) near5 (vary varies different depend\$) not (S10 S11 S12 S14 S17 S18 S20)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/07 18:35
S22	300	(source destination receiv\$3 send\$3 client\$1 recipient\$ address\$) near5 (vary varies different depend\$) near5 (encrypt\$ encipher\$ decrypt\$ decipher\$) near3 (algorithm key code) not (S10 S11 S12 S14 S17 S18 S20)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/07 18:36

## EAST Search History

S23	473	(source destination receiv\$3 send\$3 client\$1 recipient\$ address\$) near5 (vary varies different depend\$) near5 (crypto\$9 encrypt\$ encipher\$ decrypt\$ decipher\$) near3 (algorithm\$1 key\$1 code) not (S10 S11 S12 S14 S17 S18 S20)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/07 18:37
S24	368	(source destination receiv\$3 send\$3 client\$1 recipient\$ address\$) near4 (vary varies different depend\$) near4 (crypto\$9 encrypt\$ encipher\$ decrypt\$ decipher\$) near3 (algorithm\$1 key\$1 code) not (S10 S11 S12 S14 S17 S18 S20)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/07 18:38
S25	349	(source destination receiv\$3 send\$3 client\$1 recipient\$ address\$) near4 (vary varies different depend\$) near4 (crypto\$9 encrypt\$ encipher\$ decrypt\$ decipher\$) near2 (algorithm\$1 key\$1 code) not (S10 S11 S12 S14 S17 S18 S20)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/07 18:39
S26	6	(source destination receiv\$3 send\$3 client\$1 recipient\$ address\$) near4 (vary varies different depend\$) near4 (crypto\$9 encrypt\$ encipher\$ decrypt\$ decipher\$) near2 (algorithm\$1 key\$1 code) not (S10 S11 S12 S14 S17 S18 S20) and 713/162.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/07 18:42
S27	167	(crypto\$9 encrypt\$ encipher\$ decrypt\$ decipher\$) near3 (algorithm\$1 key\$1 code) and 713/162.ccls. not S26	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/07 18:51
S28	2	"6307837".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/07 18:52
S29	16	"6307837"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/07 18:52
S31	12	"6307837" and (encrypt\$ encipher\$ encod\$ cipher\$ decipher\$ decrypt\$)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/07 18:57
S32	20	("5124984" "5199072" "5638448" "5659615" "5689566" "575924" "5790548" "6047325" "6081900").pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/07 19:00

## EAST Search History

S33	694	(table matrix list database blackboard board array checklist) near5 ((encryption decryption cipher) near3 (algorithm\$1 key\$1 instruction\$1 command\$1 protocol\$1)) near4 (id\$1 identification\$1 number\$1 address\$ IP email\$ mail mailbox\$1 ((electronic e) adj box\$1) name\$1 identit\$ identifier\$1 user\$1)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/08 16:06
S34	114	(table matrix list database blackboard board array checklist) near5 ((encryption decryption cipher) near3 (key\$1)) near5 (address IP email mail mailbox ((electronic e) adj box))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/08 16:06
S35	57	(table matrix list database blackboard board array checklist) near5 ((encryption decryption cipher) near3 (algorithm program application engine function)) near5 (id information name)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/08 16:06
S36	449	(709/206 709/20) and (encrypt\$ encipher\$ decrypt\$ decipher\$) near5 (algorithm\$1 function\$1 program\$1 application\$1 code engine\$1)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/08 16:06
S37	79	(709/206 709/20).cccls. and (encrypt\$ encipher\$ decrypt\$ decipher\$) near5 (algorithm\$1 function\$1 program\$1 application\$1 code engine\$1)and (encrypt\$ encipher\$ decrypt\$ decipher\$ key algorithm function program) near3 ((list matrix database array))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/08 16:06
S38	210	((net electronic e) adj ( messag\$3 mail) ip address) near5 (correspond\$ correlat\$ map\$ using associat\$) near5 ((encrypt\$ encipher\$ decrypt\$ decipher\$) near5 (algorithm\$1 function\$1 program\$1 application\$1 code engine\$1)) not (S35 S37 "s61")	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/08 16:06
S39	33	(source destination receiv\$3 send\$3 client\$1) near5((net electronic e) adj ( messag\$3 mail) ip address) near5 (correspond\$ correlat\$ map\$ using associat\$) near5 ((encrypt\$ encipher\$ decrypt\$ decipher\$) near5 (algorithm\$1 function\$1 program\$1 application\$1 code engine\$1))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/08 16:06

## EAST Search History

S40	5	(recipient\$) near5((net electronic e) adj ( messag\$3 mail) ip address) near5 (correspond\$ correlat\$ map\$ using associat\$) near5 ((encrypt\$ encipher\$ decrypt\$ decipher\$) near5 (algorithm\$1 function\$1 program\$1 application\$1 code engine\$1))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/08 16:06
S41	6	(source destination receiv\$3 send\$3 client\$1 recipient\$ address\$) near4 (vary varies different depend\$) near4 (crypto\$9 encrypt\$ encipher\$ decrypt\$ decipher\$) near2 (algorithm\$1 key\$1 code) not (S34 S35 S36 S37 S38 S39 S40) and 713/162.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/08 16:06
S42	167	(crypto\$9 encrypt\$ encipher\$ decrypt\$ decipher\$) near3 (algorithm\$1 key\$1 code) and 713/162.ccls. not S41	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/08 16:06
S43	525	(table matrix list database blackboard board array checklist) near5 ((encryption decryption cipher) near3 (algorithm\$1 key\$1 instruction\$1 command\$1 protocol\$1)) near4 (id\$1 identification\$1 number\$1 address\$ IP email\$ mail mailbox\$1 ((electronic e) adj box\$1) name\$1 identit\$ identifier\$1 user\$1) not (S42 S34 S35 S36 S37 S38 S39 S40)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/08 18:07
S44	338	(table matrix list database blackboard board array checklist) near4 ((encryption decryption cipher) near2 (algorithm\$1 key\$1 instruction\$1 command\$1 protocol\$1)) near3 (id\$1 identification\$1 phone number\$1 address\$ IP email\$ mail mailbox\$1 ((electronic e) adj box\$1) name\$1 identit\$ identifier\$1 user\$1) not (S42 S40 S39 S38 S37 S36 S35 S34)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/08 16:14



## EAST Search History

S45	74	(table matrix list database blackboard board array checklist) near4 ((encryption encipher\$3 cipher\$ encod\$3) and (decipher\$ decod\$ decryption) near3 (algorithm\$1 key\$1 instruction\$1 command\$1 protocol\$1)) near3 (id\$1 identification\$1 phone number\$1 address\$ IP email\$ mail mailbox\$1 ((electronic e) adj box\$1) name\$1 identit\$ identifier\$1 user\$1) not (S42 S40 S39 S38 S37 S36 S35 S34)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/08 17:12
S46	30	("6768797" "6779111" "6782102" "6791472" "6792112" "6567388" "6490353" "6356638" "6272633" "6044158" "5673320" "5410599" "5222137" "5185796" "4652990").pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/08 16:57
S47	17	(encryption encipher\$3 cipher\$ encod\$3) and (decipher\$ decod\$ decryption) and ("6768797" "6779111" "6782102" "6791472" "6792112" "6567388" "6490353" "6356638" "6272633" "6044158" "5673320" "5410599" "5222137" "5185796" "4652990").pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/08 16:58
S48	4	("5787177" "5163097").pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/08 17:18
S49	22	virtual adj encrypt\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/08 17:48
S50	15	compound adj encrypt\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/08 17:23
S51	14	"5933501"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/08 17:48

## EAST Search History

S52	112	(table matrix list database blackboard board array checklist) near5 ((encipher\$3 encod\$3 decipher\$3 encryption decryption cipher) near3 (algorithm\$1 key\$1 instruction\$1 operand\$1 operator\$1 command\$1 protocol\$1)) near4 ((user\$2 sender\$1 receiver\$1 receipient\$1 send\$3 receiv\$3 customer\$1 client\$1 shoper\$1 subscriber\$1) near2 (id\$1 identification\$1 number\$1 address\$ IP email\$ mail mailbox\$1 ((electronic e) adj box\$1) name\$1 identit\$ identifier\$1) )	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/04/08 18:24
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## STAND ALONE ELECTRONIC MAIL NOTIFYING DEVICE

### BACKGROUND OF THE INVENTION

#### A. Field of Invention

This invention pertains to a device for notifying or indicating to a user the receipt of electronic mail messages and more particularly to a device which is a stand-alone device, or at least separate from a standard data processing device such as a computer, although it may be part of, or incorporated into other types of electronic devices used in the home or office, such as an answering machine, a telephone, a security system, or other electronic consumer devices.

#### B. Description of the Prior Art

Electronic mail, or e-mail as it is colloquially called refers to messages that are exchanged by users using computers, mainly over the Internet. Typically in such a system both the sender and a receiver have an account with a company which provides access to the Internet, normally referred to us as Internet Service Provider, or ISP. The two parties may have the same ISP, or may have different ISPs. In either case, each party is assigned a unique address on the Internet for sending or receiving an e-mail communication. The transmitter transmits the message by e-mail using his computer or other similar data processing equipment. The ISP of the receiver stores this message in a particular dedicated memory device configured for this purpose, which location is usually referred to as mail box since normally only the designated receiver may gain access to it. When the receiver signs on with his ISP, (by establishing communication between his computer and his ISP), he can either check his mail box, or depending on the particular ISP, may actually be notified on his computer monitor, that he has a message. The user then access his mail box and downloads from the mail box the message. Once the message is downloaded, the receiver can save the message, print it, and in general do anything that he can normally do with any other digital file. The messages may include text, still and moving pictures, audio files, and so on.

E-mail has become so popular that many reports have indicated that it is the cause of major slow-downs of the Internet. AOL, one of the largest provider of e-mail and other Internet services has recently reported that it was handling over 18 million e-mail messages a day.

Some customers have continuous connections to the Internet so that they can check or get notified of an e-mail message automatically as their ISP has received and processed their e-mail message. However, most customers do not have a direct connection to the ISP and can sign on only through a standard communication channel such as telephone line, cable line or satellite connection. The process of turning on the computer, waiting for it to boot up, and then waiting for it to establish communication connection with the ISP is not only time consuming but also a waste of time if this was the only purpose for establishing communication with the ISP and realizing that there was not any message awaiting for the user. Beside the fact that this process is usually time consuming, it may not be successful if during certain times of the day when electronic traffic is very high. Moreover certain ISPs and connection companies charge a premium for the service and/or the communication channel during certain times of the day, such as, during regular business hours.

### OBJECTIVES AND SUMMARY OF THE INVENTION

In view of the above-mentioned disadvantages of the prior art, it is an objective of the present invention to provide a

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device capable of automatically indicating to a customer if e-mail messages awaiting for him, so that the customer does not have to access his Internet account via his computer or other similar data processing equipment, for this purpose.

A further objective is to provide a device which can be also automatically set to check for e-mail any time of the day, without any prompting from the customer.

A further objective is to provide a device which is relatively simple to implement and can be incorporated/embedded easily into other type of customer electronic devices.

Other objectives and advantages of the invention shall become apparent from the following description. Briefly, an e-mail annunciating device constructed in accordance with this invention includes a stand-alone housing, a controller for establishing communication with a remote ISP provider, said ISP provider receiving messages designated to the customer, and a display device for showing when a message designated for the customer has been received. The controller contacts the ISP provider, either at regular intervals, or on demand, and downloads information descriptive of the messages. This information may be simply indicative of presence or absence of new message, or may include other data, such as the address of the sender, the subject matter, and even the text of the message.

In the simplest embodiment, the presence or absence of messages is indicated by an LED light on the housing. In more complex embodiments, messages of various priorities may be indicated, as well as other information such as the subject matter of the message, the sender's address or even text from the message. Optionally, audio as well or instead of visual indication may be provided regarding received messages.

### BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 shows a block diagram of an e-mail message indicating device constructed in accordance with invention, and its connections to a remote ISP via one of several suggested interfaces;

FIG. 2 shows a more detailed block diagram of the device of FIG. 1;

FIG. 3 shows a somewhat stylistic view of a front face of the device of FIGS. 1 and 2;

FIG. 4 shows a stylistic view of an alternate embodiment of the invention;

FIG. 5 shows a stylistic view of another alternate embodiment of the invention;

FIG. 6 shows another alternate embodiment of the invention;

FIG. 7 shows an e-mail message indicating device constructed in accordance with this invention, incorporated into a standard household device such as a telephone.

### DETAILED DESCRIPTION OF THE INVENTION

Referring first to FIG. 1, device 10 generally includes a controller 12, a data memory 14, a message memory 16, a timer 20. The data memory 14 includes the program for the controller 12 as well as the data required to sign on to a designated ISP and get the messages for a particular customer. The memory 16 is used to store information indicative of whether messages have been received or not, information descriptive of messages and the texts of the messages. The display 18 is used to indicate to the customer

File 347:JAPIO Dec 1976-2005/Dec(Updated 060404)

(c) 2006 JPO & JAPIO

File 350:Derwent WPIX 1963-2006/UD,UM &UP=200622

(c) 2006 Thomson Derwent

Set	Items	Description
S1	1071605	MEMOR??? OR RAM OR DRAM OR SRAM OR SDRAM OR RDRAM OR SLDRAM OR SGRAM OR DRDRAM OR VOLATILE() (STORE OR STORAGE)
S2	264395	S1(7N) (ACCESS??? OR MANIPULAT??? OR TAMPER??? OR WRIT??? OR READ??? OR CHANG??? OR ALTER??? OR ALTERATION? ? OR MODIF???? OR MODIFICATION? ?)
S3	2691843	(EXTERNAL OR OUTER OR OUTSIDE OR EXTERIOR OR FOREIGN OR RE- MOTE)
S4	43494	((NON OR "NOT" OR T) (5W) (INSIDE OR INNER OR INTERIOR OR WI- THIN))
S5	895	S2(7N)S3:S4(7N) (PREVENT??? OR INHIBIT???? OR PROHIBIT??? OR BLOCK??? OR IMPED??? OR PROTECT??? OR GUARD??? OR FORBID???? OR DISALLOW??? OR BAR? ? OR BARRED OR BARRING OR HALT??? OR S- ECURE? ? OR SECURING OR RESTRICT??? OR SUPRESS???)
S6	143	S5 AND (SECUR??? OR TAMPER???? OR HACK??? OR ILLEGAL? OR M- ALICIOUS OR HOSTILE OR FORG??? OR SPOOF??? OR UNAUTHORIZ? OR - UNAUTHORIZ?)
S7	27	S5 AND (DECRYPT??? OR DECIPHER??? OR ENCRYPT??? OR ENCIPHE- R??? OR SCRAMBL??? OR DESCRAMBL??? OR CRYPTOGRAPHIC?)
S8	129	S6:S7 AND (CONTROLLER? ? OR COMPONENT? ? OR UNIT? ? OR ELE- MENT? ? OR CIRCUIT? ? OR MICROCIRCUIT? ? OR CHIP? ? OR MICRO- HIP? ? OR IC)
S9	534	S2(7N)S3:S4(7N) (PREVENT??? OR INHIBIT???? OR PROHIBIT??? OR IMPED??? OR PROTECT??? OR GUARD??? OR FORBID???? OR DISALLOW- ??? OR BAR? ? OR BARRED OR BARRING OR HALT??? OR SECURE? ? OR SECURING OR RESTRICT??? OR SUPRESS???)
S10	27	S6:S7 AND PROCESSOR? ?
S11	128	(S8 OR S10) AND S9
S12	226	(CONTROLLER? ? OR COMPONENT? ? OR UNIT? ? OR ELEMENT? ? OR CIRCUIT? ? OR MICROCIRCUIT? ? OR CHIP? ? OR MICROCHIP? ? OR IC OR PROCESSOR? ?) (10N)S9
S13	70	S11 AND S12
S14	20	S13 AND AC=US/PR AND AY=(1963:2002)/PR
S15	31	S13 AND AC=US AND AY=1963:2002
S16	31	S13 AND AC=US AND AY=(1963:2002)/PR
S17	47	S13 AND PY=1963:2002
S18	54	S14:S17
S19	54	IDPAT (sorted in duplicate/non-duplicate order)
S20	3	S9(10N)MICROCONTROLLER? ?
S21	0	S20 NOT S13
S22	370	S5(10N) (CONTROLLER? ? OR COMPONENT? ? OR UNIT? ? OR ELEMEN- T? ? OR CIRCUIT? ? OR MICROCIRCUIT? ? OR CHIP? ? OR MICROCHIP? ? OR IC OR MICROCONTROLLER? ?)
S23	69	S6:S7 AND S22
S24	8	S23 NOT S13